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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,367	12/27/2001	Fabio R. Maino	ANDIP004	8712

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EXAMINER
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TESLOVICH, TAMARA

ART UNIT	PAPER NUMBER
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2137

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/034,367	<b>Applicant(s)</b> MAINO ET AL.	
	<b>Examiner</b> Tamara Teslovich	<b>Art Unit</b> 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 1-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This action is in response to the Applicant's Remarks and Amendments filed February 26, 2007.

Claims 1-25 remain withdrawn.

Claims 26-50 are pending and herein considered.

### ***Response to Arguments***

Applicant's arguments filed February 26, 2007 have been fully considered but they are not persuasive.

Applicant's first set of arguments concern Brewer's alleged failure to teach or suggest any security control indicator. Brewer's teaching in column 1 lines 62-67 of a flag set in the packet header to indicate the type of encryption more than satisfied Applicant's requirement for a "security control indicator." Brewer's flag serves as an indicator. Furthermore, Brewer's flag is an indicator of the security to be utilized with the packet and how it is to be treated. As such, Brewer's "type of encryption" flag is in fact a security control indicator and as such meets the requirements of Applicant's security control indicator.

Applicant's second set of arguments concerns Brewer's alleged failure to teach or suggest any security association identifiers associated with the frame and algorithm information contained in any entry in a security database. The Examiner disagrees with such a contention, pointing to column 3, lines 14-26 wherein servers are disclosed

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providing storage for the data from clients and providing data, such as boot files, operating system images, and applications to clients. Such support including support for particular applications such as encryption programs being performed on each of the clients. This information is required to support Brewer's disclosure of the use of numerous encryption schemes, including to but not limited to DES and RSA, wherein additional information need be stored in order to encrypt and decrypt information sent and received in packets. Systems utilizing DES and RSA encryption schemes depend on information stored securely, including but not limited to identifiers of participating clients and the requirements of each of the systems involved.

Applicant's next set of arguments found in the third paragraph of page 7 of his response, are unclear to the Examiner. Applicant states: "By contrast, independent claims 26, 36, and 48 do not teach or suggest a variety of elements recited in the independent claims." The Examiner is unsure what the Applicant's intentions with respect to this statement are.

Based on the arguments above, the Examiner maintains her previously set forth 35 U.S.C. 102 and 103 rejection of claims 26-50 included below.

### ***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 26, 36, 48 and 50 remain rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,922,785 B1 to Brewer et al.**

As per **claim 26**, Brewer teaches a method for processing frames in a fibre channel network having a first network entity and a second network entity (col.5 lines 1-8), the method comprising: receiving a frame at a first network entity from the second network entity in a fibre channel network (col.2 lines 1-5); identifying a security control indicator in the frame from the second network entity (col.2 lines 1-5); determining that a security association identifier associated with the frame corresponds to an entry in a security database (in Network Interface Card) (col.2 lines 1-5); decrypting the first portion of the frame by using algorithm information contained in the entry in the security database (col.2 lines 1-5).

As per **claim 36**, Brewer teaches a method for transmitting encrypted frames in a fibre channel network having a first network entity and a second network entity, the method comprising: identifying a fibre channel frame having a source corresponding to the first network entity and a destination corresponding to the second network entity (col.5 lines 1-8); determining if the fibre channel frame corresponds to the selectors of an entry in a security database; encrypting a first portion of the fibre channel frame using key and algorithm information associated with the entry in the security database (col.4 lines 49-63); providing a security control indicator in the fibre channel frame, wherein the security control indicator specifies that the fibre channel frame is encrypted

(col.2 lines 1-5); transmitting the fibre channel frame to the second network entity (col.1 lines 59-67).

**Claim 48** corresponds to an apparatus employing the method described in claim 36 and is rejected accordingly.

As per **claim 50**, Brewer teaches an apparatus for receiving encrypted frames in a fibre channel network having a first network entity and a second network entity (col.5 lines 1-8), the apparatus comprising: means for identifying that the frame has been secured (col.2 lines 1-5); means to lookup the security parameters in a security database that allow the de-encapsulation of the frame (col.2 lines 1-5); means to decrypt the eventually encrypted frame (col.2 lines 1-5); means to verify that the message has been sent by the sender, and that has not been tampered with during its transmission (col.1 lines 59-67)

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claim 27-35, 37-47 and 49** are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,922,785 B1 to Brewer et al. as applied to claims 26, 36, and 50 above and further in view of US Patent No. 6,973,568 B2 to Hagerman.

As per **claim 27**, Brewer teaches the method of claim 26 but fails to teach wherein the entry in the security database was created after a fibre channel network authentication sequence between the first and second network entities.

Hagerman teaches wherein the entry in the security database was created after a fibre channel network authentication sequence between the first and second network entities (col.7 lines 1-10).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Brewer's method the fibre channel network authentication sequence as described in Hagerman to provide additional security.

As per **claim 28**, Hagerman teaches wherein the first portion is decrypted using a key contained in the entry in the security database (col.3 lines 43-53).

As per **claim 29**, Hagerman teaches wherein the first portion is encrypted using DES, 3DES or AES (col.7 lines 1-10).

As per **claim 30**, Hagerman teaches recognizing that a second portion of the frame supports authentication; using algorithm information contained in the entry in the security database to authenticate the second portion of the frame (col.5 lines 15-41).

As per **claim 31**, Hagerman teaches wherein the second portion is authenticated using MD5 or SHA1 (col.3 lines 34-42; col.7 lines 35-44).

As per **claim 32**, Hagerman teaches wherein the authentication sequence is a fibre channel login sequence between the first and second network entities (col.3 lines 34-47).

As per **claim 33**, Hagerman teaches wherein the login sequence is a PLOGI or FLOGI sequence (col.6 lines 6-13).

As per **claim 34**, Hagerman teaches wherein the first and second network entities are domain controllers and the authentication sequence is a FC-CT sequence (col.1 lines 28-40).

As per **claim 35**, Hagerman teaches wherein the first and second network entities are domain controllers and the authentication sequence is a SW-TL sequence (col.6 lines 6-14).

As per **claim 37**, Brewer teaches the method of claim 36 but fails to teach wherein the entry in the security database was created after a fibre channel network authentication sequence between the first and second network entities.

Hagerman teaches wherein the entry in the security database was created after a fibre channel network authentication sequence between the first and second network entities (col.7 lines 1-10).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Brewer's method the fibre channel network authentication sequence as described in Hagerman to provide additional security.

As per **claim 38**, Brewer teaches the method of claim 36 but fails to teach wherein the payload is encapsulated using the Authentication Header protocol or the Encapsulating Security Payload protocol.

Hagerman teaches wherein the payload is encapsulated using the Authentication Header protocol or the Encapsulating Security Payload protocol (col.7 lines 1-10).



It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Brewer's method encapsulation using the Authentication Header protocol or the Encapsulating Security Payload protocol as described in Hagerman to provide additional security.

As per **claim 39**, Hagerman teaches adding security information to the header of the fibre channel frame (col.3 lines 23-33).

As per **claim 40**, Hagerman teaches wherein a first portion of the fibre channel frame is encrypted using DES, 3DES, or AES (col.7 lines 1-10).

As per **claim 41**, Hagerman teaches wherein parameters in the header are normalized prior to encrypting the first portion of the fibre channel frame (col.3 lines 48-53).

As per **claim 42**, Hagerman teaches wherein the payload is padded prior to encrypting the first portion of the fibre channel frame (col.5 lines 3-25).

As per **claim 43**, Hagerman teaches computing authentication data using key and algorithm information as well as a second portion of the fibre channel frame (col.5 lines 15-25).

As per **claim 44**, Hagerman teaches wherein authentication data is computed using MD5 or SHA1 (col.3 lines 34-42; col.7 lines 35-44).

As per **claim 45**, Hagerman teaches wherein the authentication sequence is a fibre channel login sequence between the first and second network entities (col.3 lines 34-47).

As per **claim 46**, Hagerman teaches wherein the login sequence is a PLOGI or FLOGI sequence (col.6 lines 6-13).

As per **claim 47**, Hagerman teaches wherein the first and second network entities are domain controllers and the authentication sequence is a FC-CT sequence or an SW-ILS message (col.1 lines 28-40; col.6 lines 6-14).

**Claims 49** corresponds to an apparatus employing the method described in claim 37 and is rejected accordingly.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara Teslovich whose telephone number is (571) 272-4241. The examiner can normally be reached on Mon-Fri 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



T. Teslovich



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